GOV 1006: Milestone 8

Paper Replication

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Abstract

Bauer (2018) finds that there is no consistent relationship between unemployment and one's trust in government and their satisfaction with democracy. I was able to completely replicate the majority of his findings aside from a summary table of the data. My extension evaluates how consistent or long-term unemployment may impact one's views. Rather than examining the effects of just a single year of unemployment, as Bauer did, I track unemployement trends over longer periods of time to see if extended periods of unemployment have a stronger impact on one's feelings towards the government and its institutions.

1 Introduction

"Unemployment, Trust in Government, and Satisfaction with Democracy: An Empirical Investigation", authored by Paul Bauer, explores how unemployment affects a person's trust in the government and their views towards democracy in general (Bauer (2018)). Bauer utilizes panel data from two household surveys, one in Switzerland and one in the Netherlands, to evaluate the relationship between unemployment and feelings towards government on an individual level. Due to prior findings on the link between life satisfaction and unemployment, Bauer uses that as a base metric to evaluate the magnitude of the other effects upon. Bauer finds that a household's unemployment status has no consistent effect on either trust in the government or satisfaction with democracy. These findings contradict his initial hypothesis that unemployment would lead people to have lower levels of trust and satisfaction with the government and democratic institutions. However, Bauer does find that unemployment is negatively associated with life satisfaction. People who are unemployed are generally less satisfied with their lives than those who are employed. This finding is consistent with previous research on the topic (Hudson (2006); Jimeno (2007)). Moving forward, Bauer hopes to increase the sample size of the studied group to further explore heterogenous treatment effects across various subgroups of individuals. For example, he hypothesizes that the effect of unemployment on attitudes may be greater among people traditionally disadvantaged in the labor market such as women and workers of a lower-class.

Starting with the replication materials provided by Bauer through the Harvard Dataverse, I worked to replicate the findings of Bauer's paper ((*Harvard Dataverse*, n.d.)).[1] As Bauer did, I conducted my replication and subsequent extension in RStudio (RStudio Team (2015)). Thanks to Bauer well documented code and use of RStudio, my replication process was relatively straight forward though there were a couple of discrepencies which I will go into in further detail in the "Replication" section of this paper.

2 Literature Review

The impetus for Bauer's paper relies on the fundamental assumption that should a person blame the government or its institutions for their current situation in life, a decrease in the quality of that situation would result in a corresponding decrease in their satisfaction with the government. This assumption stems from the work of John Hudson who examined the relationship between trust in institutions and one's subjective well-being (Hudson (2006)). Research shows a statistically significant relationship between one's employment status and their life satisfaction (Jimeno (2007)). As one moves from employed to unemployed, their life satisfaction tends to decrease. Given the two findings, the aim of Bauer's work is to test the hypothesis that unemployment leads to lower levels of trust in government and satisfaction with democracy.

3 Replication

I the appendix, I provide five replicated tables from the original publication. Of the five, Tables 1,3,4,5 were all replicable with no discrepencies. However, my replication of Table 2, did not completely match that of the paper. In reviewing the source code for Bauer's paper, it appears as though he inputs that table from another source. In his replication material, I can find where Bauer creates each of the other tables but not Table 2. Nonetheless, I attempted to replicate the table and largely suceeded. There were two variations between our tables. Bauer's table lists the absence of results for the SHP Life Satisfaction survey in 2010 whereas I have results and his lists the presence of results for the SHP Satisfaction with democracy survey in 2012 whereas in mine that is absent. These discrepencies need to be explored further.

4 Extension

The fundamental motivation beyond Bauer's paper is to study how unemployment affects trust in government and satisfaction in democracy. The goal of my extension to provide further insights and clarity into that relationship.

[1] The replication materials for this paper and my subsequent analyses can be found at my Github Repo and the published paper is available through bookdown.

Because Bauer's paper utilizes panel data, it tracks households across time, providing an opportunity to analyze multi-year changes. In his conclusion, Bauer discusses the limitations of the paper and a desire to explore how the effects may differ for people experiencing long-term versus short-term unemployment. Though Bauer, correctly, ackowledges more data is needed to robustly analysize long-term verus short-term unemployment, I decided to utlize the data provided to get a sense of the relationship.

My aim was to analyze the data and identify households with multi-year unemployment reports or consistent, though not continuous, reports of unemployment across a period of time. By identifying these households, I intended to test how their unemployment experiences effected their views on democracy and the government and compare that to households with singular reports of unemployment and households without unemployment. My hypothesis was in line with Bauer's. I predicted that households experiencing long-term or more frequent unemployment may feel more disheartened with the current state of government than households with a single year of unemployment or households without unemployment.

To actually conduct the extension, I created a new variable indicating whether someone had been unemployed the year before, lagged unemployment. I added the lagged unemployment variable to the regressions conducted by Bauer as an interaction with unemployment. The coefficient on the interaction term represents a household with unemployment in the present year and in the year before. The interaction coefficient is the one I am most interested in. As Bauer did, I ran three sets of linear regressions with the added lagged unemployment term: a standard pooled model, a fixed effects model, and a weighted fixed effects model.

My findings largely confirmed Bauer's. The interaction term between unemployment in the present year and unemployment in the previous year was not statistically significant. The lack of statistical significance indicates that the aggregation of two years of unemployment does not create significant impacts on one's views towards government and democracy. However, in the dataset from Switzerland (SHP) there was a statistically significant negative relationship between satisfaction with democracy and lagged unemployment. This relationship is only present in the pooled model and the fixed effects model. Because the relationship between lagged unemployment and satisfaction with democracy is not present in the weighted fixed effects model which is supposed to be the most robust model, it is unclear how strong that finding is.

Table 1: SHP Switzerland and LISS Netherlands: pooled models with lagged unemployment

	Dependent variable:										
	trust in government		statisfaction with democracy		life satisfaction		trust_in_government		satisfaction_with_democracy		life_s
	(M1)	(M2)	(M3)	(M4)	(M5)	(M6)	(M7)	(M8)	(M9)	(M10)	(M11)
Unemployed	-0.40^{***}	-0.40^{***}	-0.34^{***}	-0.26^{***}	-1.02^{***}	-1.08^{***}	-0.66^{***}	-0.47^{***}	-0.47^{***}	-0.25^{**}	-0.85^{**}
	(0.06)	(0.10)	(0.06)	(0.09)	(0.04)	(0.07)	(0.08)	(0.13)	(0.07)	(0.12)	(0.05)
Lagged Unemployed		-0.34^{***}		-0.31^{***}		-0.39^{***}		-0.20		-0.07	
		(0.10)		(0.09)		(0.06)		(0.16)		(0.15)	
Age		-0.005^{***}		-0.01^{***}		0.002^{***}		-0.01^{***}		-0.001	
		(0.001)		(0.001)		(0.001)		(0.001)		(0.001)	
Education		0.07^{***}		0.09^{***}		0.01^{***}		0.23^{***}		0.29^{***}	
		(0.004)		(0.004)		(0.003)		(0.01)		(0.01)	
Member		0.29^{***}		0.18^{***}		0.21^{***}		0.28^{***}		0.30^{***}	
		(0.02)		(0.02)		(0.01)		(0.04)		(0.03)	
Unemployed:Lagged Unemployed		0.13		0.03		-0.44^{***}		-0.22		-0.29	
		(0.21)		(0.18)		(0.13)		(0.25)		(0.22)	
Constant	5.55^{***}	5.20^{***}	6.04^{***}	5.70^{***}	7.99^{***}	7.71^{***}	5.45^{***}	4.77^{***}	6.17^{***}	4.86^{***}	7.53^{***}
	(0.01)	(0.05)	(0.01)	(0.04)	(0.01)	(0.03)	(0.01)	(0.09)	(0.01)	(0.08)	(0.01)
Observations	52,535	34,731	52,498	34,673	62,562	35,316	20,703	13,634	20,109	13,282	21,831
R^2	0.001	0.02	0.001	0.02	0.01	0.03	0.004	0.04	0.002	0.06	0.01
Note:											*p<0.1; **p<0.05

Table 2: SHP Switzerland and LISS Netherlands: fixed effects models with lagged unemployment

	Dependent variable:										
	trust in government		statisfaction with democracy		life satisfaction		trust_in_government		satisfaction_with_democracy		life_sa
	(M13)	(M14)	(M15)	(M16)	(M17)	(M18)	(M19)	(M20)	(M21)	(M22)	(M23)
Unemployed	-0.07	0.06	-0.04	-0.05	-0.47^{***}	-0.56^{***}	-0.30^{***}	-0.08	-0.06	0.14	-0.43^{***}
	(0.05)	(0.08)	(0.05)	(0.08)	(0.03)	(0.06)	(0.08)	(0.12)	(0.07)	(0.10)	(0.05)
Lagged Unemployed		-0.09		-0.19^{***}		0.01		0.17		0.22^{*}	
		(0.08)		(0.07)		(0.05)		(0.15)		(0.13)	
Age		-0.06^{***}		-0.002		-0.03^{***}		-0.18^{***}		-0.06^{***}	
		(0.003)		(0.003)		(0.002)		(0.01)		(0.01)	
Education		-0.01		0.004		0.01		-0.08		-0.06	
		(0.01)		(0.01)		(0.01)		(0.06)		(0.05)	
Member		0.05^{**}		0.002		0.0004		0.02		0.07^{**}	
		(0.02)		(0.02)		(0.02)		(0.04)		(0.03)	
Unemployed:Lagged Unemployed		-0.03		0.17		-0.33^{***}		-0.25		-0.43^{**}	
		(0.16)		(0.15)		(0.12)		(0.23)		(0.19)	
Observations	52,535	34,731	52,498	34,673	62,562	35,316	20,703	13,634	20,109	13,282	21,831
R^2	0.0000	0.01	0.0000	0.0003	0.004	0.01	0.001	0.05	0.0001	0.01	0.01
Note:											*p<0.1; **p<0.05;

Table 3: SHP Switzerland and LISS Netherlands: weighted fixed effects models

	Dependent variable:										
	trust in government		statisfaction with democracy		life satisfaction		Trust_in_government		Satisfaction_with_democracy		Life_satis
	(M25)	(M26)	(M27)	(M28)	(M29)	(M30)	(M31)	(M32)	(M33)	(M34)	(M35)
Unemployed	−0.07	0.04	−0.04	−0.01	-0.44^{***}	-0.61^{***}	-0.29^{***}	−0.10	−0.04	0.07	-0.42^{***} −
	(0.06)	(0.09)	(0.06)	(0.09)	(0.05)	(0.09)	(0.09)	(0.12)	(0.08)	(0.13)	(0.07)
Lagged Unemployed		−0.20		−0.12		−0.15		0.21		0.10	
		(0.13)		(0.12)		(0.10)		(0.17)		(0.17)	
Age		-0.05^{*}		-0.04^{*}		-0.05^{**}		-0.24^{***}		-0.10^{**}	
		(0.02)		(0.02)		(0.02)		(0.03)		(0.04)	
Education		−0.01		−0.002		0.0002		0.20		0.10	
		(0.06)		(0.05)		(0.05)		(0.23)		(0.14)	
Member		0.14		−0.04		0.05		0.19		0.31^{*}	
		(0.11)		(0.12)		(0.11)		(0.14)		(0.14)	
Unemployed:Lagged Unemployed		0.03		0.14		−0.21		−0.09		−0.20	
		(0.25)		(0.22)		(0.21)		(0.24)		(0.24)	

Note: *p<0.05; **p<0.01; ***

SEs in parentheses. Columns 25-30 are from the SHP survey and columns 31-36 are from the LISS

5 Conclusion

References

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